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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Patrick Lahiri Charriere

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LUCENT TECHNOLOGIES INC.

DOCKET ADMINISTRATOR

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HOLMDEL, NJ 07733

EXAMINER

MOORE, IAN N

ART UNIT

PAPER NUMBER

2661

DATE MAILED: 10/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/713,129

Applicant(s)

CHARRIERE ET AL.

Examiner

Ian N Moore

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on the amendment filed on 7-26-04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 and 14-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-11, 14 and 15 is/are rejected.
- 7) ☒ Claim(s) 7, 12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

1. An objection to the drawings is withdrawn since it is being amended accordingly.
2. An objection to the abstract is withdrawn since it is being amended accordingly.
3. An objection to the title is withdrawn since it is being amended accordingly.
4. Claims rejection under 35 USC 101 on claims 13-15 is withdrawn since rejected claim 13 is cancelled.
5. New claim 16 is added.
6. Allowability of Claims 1-6 and 8-11 have been withdrawn.

### ***Response to Arguments***

7. Applicant's arguments, see remarks, filed on 5-17-2004, with respect to claims 1-6, 8-11, 14-16 have been considered, however, upon further consideration, a new ground(s) of rejection is made in view of different interpretation of the previously applied reference and newly found prior art reference.

### ***Claim Objections***

8. Claim 6 is objected to because of the following informalities: it is missing a period "." at the end of the sentence. Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claim 1-6,8-11, and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hippelainen (WO 99/33230) in view of Perlman (U.S. 6,094,525) and well-established teaching in art.

**Regarding Claims 1, 8, and 16,** Hippelainen'230 discloses a mobile telecommunications system (see FIG. 2, mobile telecommunication system), apparatus and method for providing an indication of the length of a data payload (see FIG. 5, Length Code L) to be transported in a packet (see FIG. 4, a Packet), comprising:

a. means for assessing said length of data to determine appropriate units, from a plurality of possible units (see page 12, lines 11 to page 13, lines 35; note that the system determines any specific type of packet/payloads and its associated packet/payload length (i.e. appropriate units is the combined system of a specific type of packet/payloads and its packet/payload length) from a plurality possible type of packet/payload (i.e. the packet/payload consisting control/signaling values or data/traffic values)), in which the length should be expressed (see FIG. 4, payload PL; page 4, lines 14 to page 5, line 11; note

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that of the type of the payload and its associated packet length (in bits) of either signaling packet or data packet is determined);

b. means for setting a granularity field (see FIG. 5, C/S Flag bit) to define said appropriate units (see page 11, lines 10 to page 12, lines 35 and page 13, lines 6-35; note that C/S bit defines a specific type of packet/payloads and its associated packet/payload length by determining whether the packet/payload contains the control/signaling value or traffic data value information. Note that each type of packet/payload contains various/different length of data and its appropriate/associated type); and

c. means for setting the length indicator field (see FIG. 5, Length Code L) to indicate the data length (see page 5, lines 7-12; and see page 11, lines 30 to page 12, lines 6; note that Length code L indicates various/different length (in bits) of the packet/payload which associated with the type of packet (i.e. signaling or data packet)).

Hippelainen'230 does not explicitly disclose a granularity field to define said units in which said length of data is to be indicated in a data length indicator field.

However, the above-mentioned claimed limitations are taught by Periman'525 and well-established teaching in the art. In particular,

Periman'525 teaches a granularity field (see FIG. 4, Packet Type 408) to define said appropriate units (see col. 6, lines 13-35; note the packet type field in IPX header defines the type of a packet with associated with the length of packet (in bytes)) and

the length indicator field (see FIG. 4, Length 404) to indicate the data length (see col. 6, lines 13-35), and setting a length indicator field to indicate the data length (see FIG. 4, Length 404; note that length field 404 specifies the length of packet in bytes).

Hippelainen'230 teaches two fields: C/S field, which defines the type of packet/payload, and Length code L field, which defines the length of packet/payload, and the length is defined in bits. C/S field dictates the length code field by identifying whether the packet is signaling packet or data packet, which are different in length. The length code field is utilized in order to reduce the extraneous space. The length code field describes the packet in bits.

Periman'525 teaches two fields: packet type field, which defines the type of packet/payload, and length, which defines the length of packet/payload, and the length is defined in bytes. The packet type field dictates the length field by identifying various types of packets, which are different in length. The length field describes the packet in byte.

Thus, it would be obvious to one having ordinary skill in art to set/modify a granularity field and length indicator field to define said appropriate units in which said length of data is to be indicated in a data length indicator field, that is, by modifying the packet type field and length field. One can divide the functionality of length indicator field, according to the packet type field, into two separate field: one for units (e.g. bits, bytes, or length codes) indications (i.e. a granularity field) and the other for length indications which associated with the type of unit/length codes (i.e. a length indicator field), per Hippelainen'230 and Periman'525 teaching, so that the length codes or unit field will dictates and identified the type of packet unit in the length field.

In view of this, having the system of Hippelainen'230 and then given the teaching of Periman'525 and well-established teaching in art, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of

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Hippelainen'230, by providing a mechanism to handle both payload length units/types by dividing the functionality of length indicator field into two fields, as taught by Periman'525 and well-established teaching in art. The motivation to combine is to obtain the advantages/benefits taught by Periman'525 since Periman'525 states at col. 6, line 15-25 that such modification would enable to identify the length of the IPX packet. Also, the motivation to combine is to obtain the advantages/benefits taught by Hippelainen'230 since Hippelainen'230 states at page 4, line 35 to page 5, lines 1, and page 11, line 35 to col. 12, lines 5, that such modification would have an advantage that the packet/payloads of different/various lengths can be transmitted in the transmission network without any padding bits, and it would only require to multiply the packet length by 2-bit sequence instead of 9-bit.

**Regarding claims 2 and 9**, the combined system of Hippelainen'230, Periman'525 and well-established teaching discloses all aspects of the claimed invention set forth in the rejection of Claims 1 and 8 as described above, and Hippelainen'230 further teaches wherein determining the appropriate units in which the length can precisely be expressed (see FIG. 4, Payload, PL; FIG. 6, code L 00 and length in bits=464; note that different/various data type of packet/payload (i.e. data and control payloads/packets) and its associated length code are determined for each packet/payload data. The payload, PL, length unit is correctly described according to the length table as length in bits). Periman'525 teaches the largest units (see FIG. 4, Length 404; col. 6, line 1-50; note that length field specifies the packet length in bytes, which is the largest unit).

In view of this, having the system of Hippelainen'230 and then given the teaching of Periman'525 and well-established teaching in art, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Hippelainen'230, by providing a mechanism to utilize larger byte/octet unit for the payload length, for the same motivation as stated above in Claims 1 and 8.

**Regarding claims 3 and 14**, the combined system of Hippelainen'230, Periman'525 and well-established teaching discloses all aspects of the claimed invention set forth in the rejection of Claims 1 and 16, and Hippelainen'230 further teaches wherein the unit is bits, and the granularity field is one bit in length (see FIG. 4, Payload, PL, bits, and see FIG. 5, C/S field is 1 bit in length (i.e. bit 6 in the header)). Periman'525 teaches the granularity field () wherein the unit is octets (see FIG. 4, Length 404; col. 6, line 1-50; note that length field specifies the packet length in bytes/octet).

In view of this, having the system of Hippelainen'230 and then given the teaching of Periman'525 and well-established teaching in art, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Hippelainen'230, as taught by Periman'525, for the same motivation as stated above in Claims 1 and 16.

**Regarding claims 4 and 15**, the combined system of Hippelainen'230, Periman'525 and well-established teaching discloses all aspects of the claimed invention set forth in the rejection of Claims 1 and 16, and Hippelainen'230 further teaches wherein the granularity



field is located in the packet header (see FIG. 5, C/S bit is in the 1<sup>st</sup> byte of the packet/payload header) adjacent the length indicator field (see FIG. 5, Length code L is in the 3<sup>rd</sup> byte of the packet/payload header).

**Regarding claims 5 and 10**, the combined system of Hippelainen'230, Periman'525 and well-established teaching discloses all aspects of the claimed invention set forth in the rejection of Claims 1 and 16, and Hippelainen'230 further teaches wherein a frame (see FIG. 3, TDMA frame) is assessed to determine whether it contains more than one payload/packet unit (see FIG. 3, TDMA frame consists of 4 channels C1-C4, and each channel consist a payload (i.e. PL-1 and PL-2)), and each payload unit is assessed to determine said appropriate units (see FIG. 5, C/S bit and L code; see page 12, lines 11 to page 13, , lines 35; note that the system determines any specific type of packet/payloads and its associated packet/payload length (i.e. appropriate units is the combined system of a specific type of packet/payloads and its packet/payload length in bit) from a plurality possible type of packet/payload (i.e. the packet/payload consisting control/signaling values or data/traffic values)). Thus, Hippelainen'230 packet (see FIG. 4) can be modified as a packet/frame with more than one payload.

In view of this, having the system of Hippelainen'230 and then given the teaching of Periman'525 and well-established teaching in art, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Hippelainen'230 as taught by Periman'525, for the same motivation as stated above in Claims 1 and 8.

**Regarding claims 6 and 11**, the combined system of Hippelainen'230, Periman'525 and well-established teaching discloses all aspects of the claimed invention set forth in the rejection of Claims 1, 5, 8 and 10, and Hippelainen'230 further teaches wherein the granularity field, and the units of the payload unit which is to be expressed in the smallest units (see FIG. 5, C/S bits; FIG. 4, Payload, PL; FIG. 6, code L 00 and length in bits=464; note that the units of each payload is described as which is the smallest units).

In addition, it is well known in the art that the granularity field is set according to the units of the payload, that is, by adding/modifying an granularity/additional field (i.e. taught per Hippelainen'230 teaching) to pre-determine/pre-define/set the units of the pack length in order handle both types of packet/payload length units (i.e. as bits taught by Hippelainen'230 and as bytes taught by Periman'525). Thus, Hippelainen'230's payload data unit can be preset/pre-determined utilizing the granularity/additional field per well-established teaching. In addition, it is also well known in the art that when the payloads are small payload, the additional/granularity field must be set to bits in order to handle small payloads.

In view of this, having the system of Hippelainen'230 and then given the teaching of Periman'525 and well-established teaching in art, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Hippelainen'230, by providing a mechanism to set the units/values in the additional field in accordance with the payload data unit, for the same motivation as stated above in Claims 1 and 8.

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***Allowable Subject Matter***

2. Claims 7 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ian N Moore whose telephone number is 571-272-3085. The examiner can normally be reached on M-F: 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ken Vanderpuye can be reached on 571-272-3078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

INM  
10/15/04

  
BRIAN NGUYEN  
PRIMARY EXAMINER